

Abstracts

Keynote 1

Globalisation, occupational epidemiology, research ethics

K1.1 RESEARCH ETHICS IN DEVELOPING COUNTRIES

Y. Mashalla. Muhimbili University College of Health Sciences, Dar es Salaam, Tanzania

The profession of epidemiology has at its foundation the maintenance, enhancement, and promotion of public health by better understanding the determinants of disease. Epidemiologists therefore, in the course of practice, should be accountable for the work that they perform as guided by national and international ethics guidelines, policies and established standards.

In the recent years, there has been a growing trend for collaborative research between institutions in the north and those in the south. This is a result of changing pattern of diseases, emerging diseases (for example, EBOLA) and re-emerging conditions (for example, tuberculosis). Cultural diversity, different working environments, national policies, and guidelines are some of the issues that may influence research ethics in collaborative research.

While research ethics may be well established in institutions in the developed countries, the same is not in many developing countries. Lack of established structures for dealing with research ethics, poorly constituted ethics review boards, underfunding of ethics review boards, lack of training of human on research ethics, poor research management, lack of awareness of international ethical guidelines and standards, inadequate knowledge of the rights of subjects, illiteracy, poverty, and increased vulnerability of communities are major challenges of research ethics in developing countries.

It is suggested that researchers from the north and those from the south should work closely to understand the context of research ethics in developing countries and facilitate promotion of ethical standards in research in developing countries.

K1.2 PESTICIDES IN DEVELOPING COUNTRIES, RESEARCH, AND ETHICS

I. Wesseling. Central American Institute for Studies on Toxic Substances (IRET), Universidad Nacional, Costa Rica

Pesticides are a large and heterogeneous group of toxins with the function to be purposefully released into the environment to kill living organisms. Pesticides potentially affect the health of all human beings and are a global concern. Governments, international agencies, and industry promote pesticides under the justification that pesticides are indispensable to grow sufficient food for the world's growing population and growing urban settings. Use of pesticides continues to increase.

I consider *equal rights to health* a main principle in ethical reflections on pesticides in developing countries. Poor countries carry the highest burden of exposures, and the least advantaged population groups are often the most heavily exposed. Pesticide use is particularly heavy in developing tropical countries exporting flowers, fresh fruits, and vegetables to rich countries. Pesticides also appear in remote corners of the globe, used by the poorest farmers in the worst imaginable use conditions. Developing countries do not have research and regulatory capacity to monitor and protect effectively their population's health. Regulatory guidance based on "safe use" strategies by programs such as WHO-IPCS and FAO Code of Conduct increases inequality between developed and developing countries, pursuing good agricultural practice, impossible to achieve in poor countries, instead of banning of hazardous pesticides.

Considering pesticides collectively, abundant human evidence exists regarding serious health effects, including systemic poisoning, dermatitis, allergies, cancers, and neurotoxic, reproductive, immunological, and endocrine disrupting effects. For the hundreds of distinct compounds, human data are scarce. Almost nothing is known about interactions in multiple pesticide exposures, common in developing countries, or exposures with social determinants of health, such as undernourished children and elderly living in poverty.

The key ethical question is how the scientific community can contribute to protect human health and reduce inequality between and within nations. To address pesticides as an environmental and social justice and human rights issue, it is a priority to document pesticide exposures and effects—in particular in vulnerable groups in the social contexts of developing countries. Empowerment of researchers in developing countries can be pursued through joint studies. Pesticide health research must be carried out with independent funds without participation of industry researchers or other industry intervention. Health research must be embedded in a broad multidisciplinary research approach on sustainable agricultural and economic policies and non-chemical pest control methods.